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AGRO-INDUSTRIAL INNOVATIONS AS A BASIC ASPECT OF THE DEVELOPMENT OF DOMESTIC AGRICULTURE

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In this article, we examined the main directions of agro-industrial innovations in domestic agribusiness, identified advantages and disadvantages, and emphasized technical innovations as the strongest part of the innovative development of the complex, which today has all the chances to get support from the government.

Keywords: innovations, agro-industrial complex, fodder shredder, technical development.

Today, the agro-industrial complex is regarded as one of the most perspective economic directions of the country's development. However, we should pay attention to the fact that innovative processes in this industry have their own specifics. As a rule, their dynamism and effectiveness are influenced by regional, branch, functional, technological and organizational features. Not to mention the fact that it is in the agro-industrial complex with industrial means of production that the main participants in innovations are animals and plants.

Thus, in innovation development there is interaction of economic and natural-biological processes. Therefore, when managing innovation, it is necessary to take into account the requirements of not only economic laws, but also laws of nature, which include a whole range of aspects, namely: equivalence, indispensability and a combination of life factors, minimum laws, optimum and maximum [1]. The objective of this paper is to consider the key directions of agro-industrial innovations of the domestic agro-industrial complex (APC), and to identificate advantages and disadvantages for determining the potential development trajectories of domestic agro-industrial complex.

Realization of highly productive means in the process of innovative development of the agro-industrial complex creates the need for the development

of a management strategy for an agricultural enterprise within the framework of which the following areas will be implemented:

- Development, formation and implementation of long-term and short-term innovation projects;
- Benchmarking and increasing the efficiency of using innovations;
- Reduction of time of introduction of new and renewal of the already obsolete agricultural machinery;

To date, four important industries are classified in the agro-industrial complex (see table 1), within which development, formation and implementation of long-term and short-term innovation projects is possible [2].

Table 1.

Industries of the domestic agro-industrial complex

Selective-genetic	**Industrial and technological**	**Organizational and managerial**	**Economic and environmental**
New varieties and hybrids of agricultural plants. New breeds, types of animals and birds. Creation of plants and animals resistant to diseases and pests, adverse environmental factors.	Use of new technology. New technologies for creating agricultural crops. New industrial technologies in animal husbandry. New fertilizers and their systems. New means of plant protection. Biologization and ecology of agriculture. New resource-saving technologies of production and storage of food products, aimed at increasing the consumer value of food.	Development of cooperation and the formation of integrated structures in the agro-industrial complex. New forms of maintenance. New forms of organization and motivation of work. New forms of organization and management in the agro-industrial complex. Marketing of innovations. Concepts, methods of development of solutions.	Formation of the personnel system of scientific and technical support of the agro-industrial complex. Improvement of working conditions, solution of health problems, education and culture of rural workers. Improvement and improvement of the quality of the environment. Ensuring favorable environmental conditions for the life [4].

From the practical point of view, industrial and technological innovation projects play an important role in development of the agro-industrial complex. The main advantages of these innovations are:

- New developments have the property of multiplication for each of the enterprises in Russia;
- Production and technological innovation projects allow to increase the competitive advantage of the enterprise, and as a result develop the agro-industrial complex of the country as a whole;
- A patent portfolio can be created from innovative projects, with the help of which an enterprise will be able to protect its intellectual rights [6].

But this direction also has the disadvantages presented below:

- High additional costs, which are associated with the development of technology and regulatory and technological documentation, for the manufacture of tools and equipment;
- Increased labor intensity of production operations caused by the introduction of a new product;
- The main thing that complicates the creation of new products is the uncertainty of the result. Innovation risks are almost the most serious of all risks that enterprises ever deal with.

However, as the results of scientific research and the assessment of the effectiveness of the introduction of innovative approaches show, one of the priorities of the scientific, technical and innovation policy in the agro-complex should be the state support of fundamental and applied science [3]. The effectiveness of their implementation can be guaranteed by the author's support.

Thus, a close relationship between agricultural science and agricultural producers is required in order to ensure the transfer of adapted innovative technical developments and their effective implementation in the conditions of the agro-complex. The state needs effective mechanisms for accepting completed scientific and technological developments and their selection already at the level of innovative projects required for agricultural production.

So an excellent example of this kind of innovative scientific and technical development can serve as a patented chopper feed "FERMER DKU-05". This is a fairly new and promising invention in the line of devices - grain shredders.

The present invention, due to the implementation of the new grinding technology, makes it possible to increase the degree of uniformity of the grain size distribution of long-filamentous coarse feeds, thereby ensuring their uniform distribution, as well as significantly reducing the total energy consumption of the technological process of grain refinement [7].

This industrial and technological innovation is an excellent example that clearly demonstrates the development of the enterprise and Russian agro-industrial complex as a whole.

Thus, summarizing all of the above, it should be noted that in modern conditions, technological and scientific and technical re-equipment of the domestic agro-industrial complex is a fundamental trajectory of Russia's development [5].

Only through state support and the creation of favorable conditions for the activation of economic activity and the intensification of the innovative technological process of agricultural enterprises and private business will it make it possible to raise the quality and competitiveness of the domestic agro-industrial complex and, in the future, still bring the subsidized agrarian sector of the economy onto the path of sustainable and efficient development of the potential of the entire domestic agribusiness.

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